

Application No. 10/748493
Page 5

Amendment
Attorney Docket No. S63.2B-10827-US01

Remarks

This Amendment is in response to the Office Action dated June 1, 2006.

Objections

Claim 71 is objected to because of the informality of having iron listed twice in the Markush group. Applicants have amended claim 71 only for the purpose of removing the informality.

Rejections

35 U.S.C. §112, first paragraph

Claims 64-65 have been rejected under 35 U.S.C. §112, first paragraph. The Office Action asserts that regarding claim 64, the specification does not provide support for the chelating agent being thiocarboxylic salts.

Applicants traverse the rejection. Support is found on page 4, lines 31-34 and page 5, lines 1-3.

The Office Action asserts that “[r]egarding claim 65, the specification does not provide support for the thiouronium salts having the specified formula.

Applicants traverse the rejection. Support is found on page 11, lines 3-5. U.S. Patent No. 5560814 is incorporated by reference. The structure is found at column 2, lines 10-52.

Applicants respectfully request withdrawal of the rejection of claims 64-65 under 35 U.S.C. §112, first paragraph.

35 U.S.C. §103(a)

Pacetti et al. in view of Stinson and Kuzushima

Claims 59, 63-71 and 74 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Pacetti et al. (US 6,355,058) in view of Stinson (US 20050089438 A1) and Kuzushima (JP40802500A).

Claim 59 has been amended to incorporate the limitations found in claim 2,

Application No. 10/748493
Page 6

Amendment
Attorney Docket No. S63.2B-10827-US01

previously canceled), as originally filed. Support is also found at least from page 4, bottom, and from page 11, lines 12-21.

Claim 59 as amended is directed to a method of cleaning or electropolishing a stent formed from an alloy including at least one noble metal and at least one non-noble metal, the method including, among other steps, the steps of electropolishing the stent in an aqueous acidic mixture including at least one chelating or complexing agent which has at least one sulfur atom *and at least one halide in the form of a salt or an acid* and subjecting said acidic mixture to a multiple pulse waveform.

The present inventors have found it to be advantageous to employ a halide or salt thereof. "The addition of halides has been found to increase the uniformity of the polishing film or balance its properties to provide improved surface finish (smoothness)." Page 10, lines 23-25 of the present specification.

Claim 59, as amended, is patentable over the art of record.

The combination of Pacetti et al., Stinson and Kuzushima fails to suggest the use of a halide in the electropolishing solution disclosed therein and therefore fails to suggest the invention of claim 1 as amended.

Claims 63-71 and 74 depend from claim 59 and are patentable for at least the reasons that claim 59 is patentable.

Applicants respectfully request withdrawal of the rejection of claims 59, 63-71 and 74 under 35 U.S.C. §103(a) as being unpatentable over Pacetti et al. (US 6,355,058) in view of Stinson (US 20050089438 A1) and Kuzushima (JP40802500A).

Leong in view of Faust and Bereza et al.

Claims 59, 63-64 and 67-74 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Leong (US 2002/0198589A1) in view of Faust (US 2,334,698) and Bereza et al. (SU 144636 A1).

Claim 59 has been amended to clarify that the tubular member is formed from an alloy formed with at least one noble metal and at least one non-noble metal. Support for this amendment comes at least from the claim preamble.

Noble metals and non-noble metals are dissimilar metals. See page 3, lines 29-34.

Application No. 10/748493
Page 7

Amendment
Attorney Docket No. S63.2B-10827-US01

As discussed in the Background of the Invention, the addition of noble metals complicates the manufacturing process due to the chemical inertness of noble metals. Currently employed descaling and polishing methods have been found to be neither efficacious nor effective for uniformly dissolving alloys having noble metals. See page 3, lines 20-26 of the current specification.

Leong discloses an improved tessellated stent which is cut from a single length of tubing which can be manufactured by direct laser cutting. See Abstract. The stent may be stainless steel, or cobalt-chromium or platinum-modified stainless steel. See paragraph 46.

After cutting, the stents may be electropolished in an acidic aqueous solution such as a solution of ELECTRO-GLO #300, sold by the ELECTRO-GLO Co., Inc., Chicago, Ill. The mixture includes sulfuric acid, carboxylic acid, phosphates, corrosion inhibitors and a biodegradable surface active agent. See paragraph 61.

Applicants submit that the secondary reference Faust, which the examiner employs for the thiourea complexing agent, discloses a method for polishing only *stainless steel*. Faust fail to discuss the addition of noble metals to the stainless steel, and make no suggestion that the method for polishing stainless steel as disclosed therein, would be suitable for alloys including a noble metal. Thus, while there may be motivation to employ the method disclosed by Faust for the stainless steel stents of Leong, there is no suggestion that such a method could also be employed for Leong's platinum-modified stainless steel.

Applicants submit that combining the method for polishing stainless steel disclosed by Faust with Leong, fails to produce the claimed subject matter.

Applicants submit that one of skill in the art would not look to methods of polishing stainless steel if the goal were to improve a method of polishing a noble metal enriched alloy. Consequently, Applicants submit that only in hindsight, using Applicants' own invention, would one combine the method of Faust with Leong in the manner asserted in the Office Action. Hindsight analysis, using Applicants' own invention, is not permitted:

Application No. 10/748493
Page 8

Amendment
Attorney Docket No. S63.2B-10827-US01

Where an invention is contended to be obvious based upon a combination of elements across different references, our cases require that there be a suggestion, motivation or teaching to those skilled in the art for such a combination. *In re Fine*, 837 F.2d 1071, 1074 [5 USPQ2d 1596] (Fed. Cir. 1988). This requirement prevents the use of "the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight." *Ecolochem, Inc. v. So. Cal. Edison Co.*, 227 F.3d 1361, 1371-72 [56 USPQ2d 1065] (Fed. Cir. 2000) (quoting *In re Dembiczak*, 175 F.3d 994, 999 [50 USPQ2d 1614] (Fed. Cir. 1999)).

Iron Grip Barbell Co. v. USA Sports Inc., 73 USPQ2d 1225, 1227 (Fed. Cir. 2004).

Therefore, Applicants submit that this combination fails to produce the subject matter of claim 59.

The examiner employs Bereza for the reverse multiple pulse wave form recited in claim 59. However, the method disclosed by Bereza is directed to polishing tungsten. Therefore, there is a lack of motivation to combine this reference with Leong for polishing stainless steel, cobalt-chromium, or platinum-modified stainless steel stents, or with the stainless steel polishing method disclosed by Faust.

To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.

This court has identified three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art.

In re Rouffet, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998).

Applicants submit that one of skill in the art would not look to methods for polishing stainless steel or to methods of polishing tungsten, in order to improve a process for polishing an alloy which includes a noble metal.

Applicants submit that as there it is only with hindsight that the combination of Leong with Faust can be found to produce the subject matter of claim 59, and that there would be

*Application No. 10/748493
Page 9*

*Amendment
Attorney Docket No. S63.2B-10827-US01*

no motivation to combine Bereza with Leong and Faust. Therefore, the combination fails to render claim 59 obvious for at least these reasons.

Claims 63-64 and 67-74 depend from claim 59 and are patentable for at least the reasons that claim 59 is patentable.

Applicants respectfully request withdrawal of the rejection of claims 59, 63-64 and 67-74 under 35 U.S.C. §103(a) as being unpatentable over Leong (US 2002/0198589A1) in view of Faust (US 2,334,698) and Bereza et al. (SU 144636 A1).

*Pacetti et al. in view of Stinson and Kuzushima
or Leong in view of Faust and Bereza and further in view of Kelly*

Claim 61 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Pacetti et al. in view of Stinson and Kuzushima or over Leong in view of Faust and Bereza as applied to claim 59 above, and further in view of Kelly (US 4,148,670).

Claim 61 depends from claim 59.

Claim 59 has been addressed above and is patentable over Pacetti et al. in view of Stinson and Kuzushima for at least the reasons discussed above. Claim 61 depends from claim 59 and is also patentable for at least these reasons.

Claim 59 is also patentable over the combination of Leong, Faust and Bereza at least because there is no motivation to combine Faust with Leong, and the combination therefore fails to suggest the invention embodied in independent claim 59.

Combining Kelly with these references makes no difference with respect to the patentability of claim 59 because the combination still fails at least due to the lack of motivation to combine Faust with Leong.

Claim 61 depends from claim 59 and is patentable over Leong in view of Faust, Bereza and Kelly, for at least the reasons that claim 59 is patentable over this combination.

Applicants respectfully request withdrawal of the rejection of claim 61 under 35 U.S.C. §103(a) as being unpatentable over Pacetti et al. in view of Stinson and Kuzushima or over Leong in view of Faust and Bereza as applied to claim 59 above, and further in view of Kelly (US 4,148,670).

Application No. 10/748493
Page 10

Amendment
Attorney Docket No. S63.2B-10827-US01

*Leong in view of Faust and Bereza
and further in view of Bogorad et al.*

Claim 62 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Leong in view of Faust and Bereza as applied to claim 59 above, and further in view of Bogorad et al. (SU 802412 B).

Claim 62 depends from claim 59.

Claim 59 has been discussed above and is patentable over Leong in view of Faust and Bereza, at least because there is no motivation to combine Faust with Leong. Combining Bogorad et al. with this combination, still fails to render claim 59 obvious for at least this reason.

As claim 62 depends from claim 59, it is patentable over this combination for at least the reasons that claim 59 is patentable over this combination.

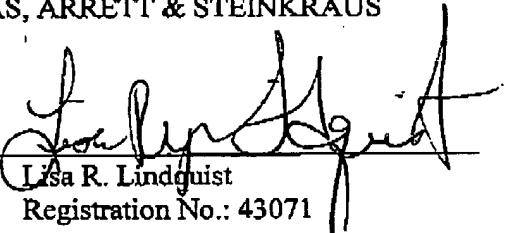
Applicants respectfully request withdrawal of the rejection of claim 62 under 35 U.S.C. §103(a) as being unpatentable over Leong in view of Faust and Bereza as applied to claim 59 above, and further in view of Bogorad et al. (SU 802412 B).

CONCLUSION

Claims 59 and 61-74 are pending in the application. Applicants have addressed each of the issues presented in the Office Action. Based on the foregoing, Applicants respectfully request reconsideration and an early allowance of the claims as presented. Should any issues remain, the attorney of record may be reached at (952)563-3011, to expedite prosecution of this application.

Respectfully submitted,

VIDAS, ARRETT & STEINKRAUS

By: 

Lisa R. Lindquist
Registration No.: 43071

Date: May 1, 2006

6109 Blue Circle Drive, Suite 2000
Minnetonka, MN 55343-9185
Telephone: (952) 563-3000
Facsimile: (952) 563-3001

f:\wpwork\lr\10827us01_amd_20060309.doc